

# CLOSED CELL POLYETHYLENE FILLER BOARD

## UNIFLEX PE CLOSED CELL POLYETHYLENE FILLER BOARD

### **PRODUCT FEATURES**

Concrete expands and contracts according to temperature changes and therefore some type of filler is needed between slab work to keep the concrete from buckling when it expands and to fill the resultant gaps when the concrete contracts.

Expansion (movement) joints may be used between the slabs and also to separate the slabs from structures, thereby preventing damage that may occur during these expansion and contraction cycles.

UNIFLEX PE<sup>™</sup> Closed Cell Polyethylene Filler Board is a non-extruding, non-absorbent, UV resistant, semi-rigid, highly resilient, bitumen free, closed cell polyethylene board designed as a joint filler material for expansion and movement joints in concrete, brick work, block work and masonry.

UNIFLEX PE<sup>™</sup> Closed Cell Polyethylene Filler Board is bitumen free, rot proof and has high compression & recovery therefore accommodating thermal and other structural movements, without the risk of load transfer or reflective cracking through the designed joint. It also provides support and accurate depth measurement for subsequent joint sealant materials.

#### **ADVANTAGES**

- Good thermal insulation properties
  - Light weight
  - Non-absorbent and non-tainting

Natural bond breakerEasy to install

Bitumen free and rot proof, ideal for water retaining structures

#### FIELD OF APPLICATION

Brick Works & Block Works	Masonry
Motorways, Runways, Taxiways, Aprons	Pedestrian Areas, Piers & Kerbs
Concrete Roads & Pavements	Basements, Tunnels & Subways
Bridges & Viaducts	Abutments & Parapet Walls
Dams & Reservoirs	Water & Waste Water Treatment Plants

### **TECHNICAL PROPERTIES**

PROPERTY	UNIT	TEST METHOD	RESULT
Density	kg/m³	ISO 845	80 <u>+</u> 10%
Tensile Strength	kPa	ISO 1798	837
Elongation at Break	%	ISO 1798	98
Tear Strength	N/cm	ISO 8067	9.2
Compression Set at 23°C / 50% RH	%	ISO 1856	17

\*(All values given are subject to 5-10% tolerance / Compliance with ISO BS standard)\*

#### PHYSICAL PROPERTIES

MATERIAL	Closed Cell Polyethylene (PE)
COLOUR	Black *(Other colours available upon request)
SIZE	2m x 1m
THICKNESS	10m , 12mm , 15mm , 20mm , 25mm , 30mm
	*(other thicknesses and sizes available upon request)
DENSITY	80kg/m³ - 110kg/m³
PACKAGING	20 sheet / bundle (10mm,12mm)
	15 sheet / bundle (15mm)
	10 sheet / bundle (20mm,25mm)
WEIGHT	Dependent upon thickness

### **TYPICAL APPLICATIONS**





#### STANDARD DETAILS OF SLAB ON GROUND APPLICATIONS



3D ILLUSTRATION OF GROUND SLAB APPLICATION

#### INSTALLATION PROCEDURES

#### PREPARATION

To form an expansion joints in new concrete, brickwork, blockwork, and masonry, firstly construct one side of the joint prior to fixing UNIFLEX PE<sup>™</sup> Closed Cell Polyethylene Filler Board.

#### NEW EXPANSION JOINTS

Cut the UNIFLEX PE™ Closed Cell Polyethylene Filler Board using a sharp knife to the desired length and shape to fill the full depth of the expansion joint. Before installing, simply "zip cut" the top strip as per the required joint sealant depth, throughout the length, this top strip can be removed later for sealant application.

Fix the measured UNIFLEX PE™ Closed Cell Polyethylene Filler Board in place against the completed side of the joint to the full depth, with the top strip flush with the finished surface. Prior to sealing, the top strip can then be pulled easily from the joint to provide an uncontaminated sealing slot ready for preparation and sealing. Therefore, sealant wastage can be reduced. (Refer Figure 1)

UNISTICK<sup>™</sup>CA contact adhesive can be used to spot bond the UNIFLEX PE<sup>™</sup>Closed Cell Polyethylene Filler Board in place. Allow the contact adhesive to set before constructing the other side of the joint.

#### EXISTING EXPANSION JOINTS

UNIFLEX PE™ thickness of 10 - 20% greater than the width of the existing joint to be used, to ensure a snug fit particularly when the joint opens. Simply squeeze the UNIFLEX PE™ Closed Cell Polyethylene Filler Board into the existing joint to the desired level so as to create a slot to the specified width and depth for the subsequent joint sealant.

After the sealing slot has been created, sealing the joint with an appropriate sealant from the UNISEAL<sup>™</sup> range. As sealants will not bond to UNIFLEX PE<sup>™</sup> Closed Cell Polyethylene Filler Board, the additional need for bond breaker strips is eliminated.

(Refer Figure 2)

This technical data sheet is given in good faith and does not guarantee the application work. All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice. It is the users responsibility to obtain the latest version of the information required.



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